



**Vertical desktop autoclaves**

Pressure regulator

**Vertical stand autoclaves.**

Microprocessor control and atmospheric purge

**Water distiller for autoclaves**

**Horizontal stand autoclave**

Microprocessor control

**Horizontal stand autoclaves**

Microprocessor control and fractional vacuum purge

**Polypropylene and polyester bag sealers**

**Autoclaves for preserved food**

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## ELECTRICAL AUTOCLAVES FOR STERILIZATION

Wide range of electrically heated bench top and top loading autoclaves. Pressure range from 0.62 to 2 bar, Capacity: 1.5, 8, 12, 18, 20, 23, 25, 50, 80 and 150 litres.

*Complies with the pressure and autoclave directives*



- *50 Years of sterilization experience.*
- *Quality and innovation.*
- *A new dimension in design and technology*



### PRINCIPAL OF STEAM STERILIZATION:

STERILIZATION IS THE PROCESS OF THE DESTRUCTION AND ELIMINATION OF ALL FORMS OF MICROBIAL LIFE, INCLUDING BACTERIA AND ITS SUB-FORMS.

THE LABORATORY AUTOCLAVE CONSISTS OF A VESSEL IN WHICH STEAM FLOWS AT A HIGH PRESSURE WITH A STERILIZATION PURPOSE. SATURATED STEAM WILL IMMEDIATELY CONDENSE AND THUS RELEASING ITS HIGH EVAPORATION HEAT, WHICH IS IN FACT THE DESTRUCTIVE AGENT. IN ORDER THAT STERILIZATION WOULD BE EFFECTIVE, STEAM MUST BE SATURATED AND, CONSEQUENTLY, ALL THE AIR INSIDE THE VESSEL MUST BE PURGED BEFORE INITIALIZING THE PROCESS.

IN THE FOLLOWING PAGES J.P. SELECTA OFFERS AN EXTENSIVE RANGE OF AUTOCLAVES WITH A CHOICE OF ATMOSPHERIC PURGING OR VACUUM PURGING SYSTEMS. A CHOICE OF MICROPROCESSOR CONTROLLED SYSTEMS ARE OFFERED INCLUDING DRYING CYCLES AT THE END OF THE STERILIZATION CYCLE.



# Electrical Autoclaves for sterilization



## THREE DIFFERENT CONTROL SYSTEMS:



**CONTROL BY PRESSURE WITH ATMOSPHERIC PURGE:**  
MICRO 8 MED 12 MED 20



**MICROPROCESSOR CONTROL OF TEMPERATURE AND STERILIZATION CYCLE, ATMOSPHERIC AIR PURGE:**

AUTESTER P 1,5 (mod. vertical)  
PRESOCLAVE III 50 (mod. vertical)  
PRESOCLAVE III 80 (mod. vertical)



**MICROPROCESSOR CONTROL OF TEMPERATURE AND STERILIZATION CYCLE, PULSED VACUUM AIR PURGE:**

AUTESTER ST DRY PV-B 12 (mod. horizontal)  
AUTESTER ST DRY PV-B 18 (mod. horizontal)  
AUTESTER ST DRY PV-B 23 (mod. horizontal)

AUTESTER ST DRY PV-III 25 (mod. horizontal)



RS-232 and USB interface output of parameters to a computer, printer or USB adapter.

The printer can be built-in the autoclaves together with the control panel:

AUTESTER ST DRY PV-III 50 (mod. vertical)  
AUTESTER ST DRY PV-III 80 (mod. vertical)  
AUTESTER ST DRY PV-III 150 (mod. vertical)  
PRESOCLAVE III 50 (mod. vertical)  
PRESOCLAVE III 80 (mod. vertical)



## SUMMARY TABLE OF MODEL RANGE

## QUICK OVERVIEW

MODELS	Part No.	System DRY	Capacity litres	Temperature °C	Pressure bar	Power W	Control	Purge control	Type
MICRO 8	4001745	NO	8	121 and 134	1 and 2	1000	Pressure thermostat	Manual	Vertical bench top
MED 12	4001756	NO	12	121 and 134	1 and 2	1800	Pressure thermostat	Atmospheric	Vertical bench top
MED 20	4001757	NO	20	121 and 134	1 to 2	2500	Pressure thermostat	Atmospheric	Vertical
PRESOCLAVE III 50	4001758	NO	50	115 to 134	0.62 to 2	3600	Electronic controller	Atmospheric	Vertical
PRESOCLAVE III 80	4002136	NO	80	115 to 134	0.62 to 2	3600	Electronic controller	Atmospheric	Vertical
AUTESTER ST DRY PV-B 12	4001727	YES	12	121 and 134	1 and 2	1800	Microprocessor	Purged vacuum	Horizontal bench top
AUTESTER ST DRY PV-B 18	4001734	YES	18	121 and 134	1 and 2	1500	Microprocessor	Purged vacuum	Horizontal bench top
AUTESTER ST DRY PV-B 23	4001735	YES	23	121 y 134	1 and 2	1700	Microprocessor	Purged vacuum	Horizontal bench top
AUTESTER ST DRY PV-III 25	4002420	YES	25	105 to 134	0.21 to 2	2510	Microprocessor	Purged vacuum	Horizontal bench top
AUTESTER ST DRY PV-III 50	4002516	YES	50	105 to 134	0.21 to 2	3600	Microprocessor	Purged vacuum	Vertical
AUTESTER ST DRY PV-III 80	4002517	YES	80	105 to 134	0.21 to 2	3600	Microprocessor	Purged vacuum	Vertical
AUTESTER ST DRY PV-III 150	4002518	YES	150	105 to 134	0.21 to 2	7500	Microprocessor	Purged vacuum	Vertical
STERIL-FOOD COM 20	4002421	NO	20	70 a 121	1	2500	Microprocesador	Automatic	Vertical
STERIL-FOOD MAN 80	4002427	NO	80	70 to 121	1	3600	Microprocessor	Automatic	Vertical
STERIL-FOOD COM 80	4002422	NO	80	70 to 121	1	3600	Microprocessor	Automatic	Vertical
STERIL-FOOD MAN 150	4002428	NO	150	70 to 121	1	7500	Microprocessor	Automatic	Vertical
STERIL-FOOD COM 150	4002423	NO	150	70 to 121	1	7500	Microprocessor	Automatic	Vertical



## Autoclaves for sterilization “MICRO 8”, “MED 12” and “MED 20”

PRESSURE REGULATOR THERMOSTAT OF 1 AND 2 bar. TEMPERATURES 121 °C AND 134 °C.  
 VERTICAL DESKTOP MODELS. “MICRO 8” CAPACITY: 8 LITRES. “MED 12” CAPACITY: 12 LITRES.  
 VERTICAL STAND MODEL “MED 20” CAPACITY: 20 LITRES.

### An economic alternative. Semiautomatics.

#### SAFETY:

**SAFETY VALVE:** PREVENTS THE PRESSURE WITHIN THE AUTOCLAVE OVERPASSING THE MAXIMUM SET LIMIT.  
**SAFETY PRESSURE:** DISCONNECTS POWER TO THE HEATER IN CASE OF OVERPASSING THE PRESSURE SET LIMIT.  
**SAFETY THERMOSTAT:** DISCONNECTS THE HEATING IN CASE OF OVERTEMPERATURE OR LACK OF WATER IN THE TANK.  
 THERMALLY INSULATED LID MADE OF MOLDED THERMOPLASTIC.

#### COMMON FEATURES

AISI 304 stainless steel external case and top.  
 Stainless steel chamber and lid, with easy opening.  
 INCOLOY special stainless steel heater element, which provides long life, low corrosion and high temperatures resistance.  
 Manual air purge when starting (“MICRO 8” model).  
 Automatic atmospheric purge (“MED 12” and “MED 20” models).  
 Safety device to prevent lid opening.  
 Starting main switch.



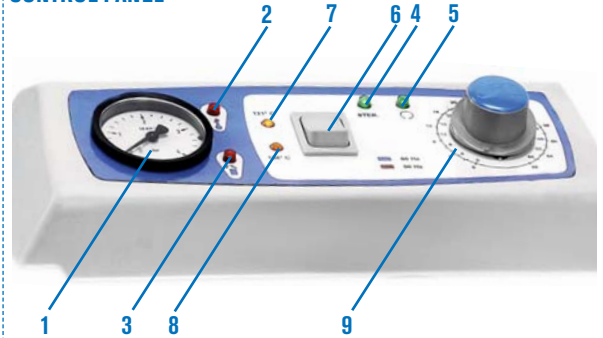
#### REAR PART

Mains source.  
 Two fuse carriers.  
 Safety thermostat.

#### SIDE PART

Drain outlet.  
 Steam and drainage selective valve.

#### CONTROL PANEL



1. Pressure gauge.
2. Over temperature alarm light indicator.
3. Door open light indicator.
4. Sterilization phase light indicator.
5. Sterilization end of cycle light indicator.
6. Pressure selector 121°C or 134°C.
7. Light indicator at 121°C.
8. Light indicator at 134°C.
9. Timing from 0 to 60'.



## Autoclave for sterilization “MICRO 8”

DESKTOP MODEL



#### MODEL

Part No.	Capacity litres	Ø (usable) cm	Height cm	Height/Width/Depth (exterior) cm	Power W	Weight Kg
4001745	8	24	15	40 38 38	1000	13

It comes complete with a stainless steel wire basket of Ø 22x14cm high. Part no. 1004771.



## Autoclave for sterilization "MED 12"

### DESKTOP MODEL

Features: see page 58



#### MODEL

Part No.	Capacity litres	Ø (usable) cm	Height (usable) cm	Height/Width/Depth (exterior) cm	Power W	Weight Kg
<b>4001756</b>	12	24	26	46 38 38	1800	18

It comes complete with a stainless steel wire basket of Ø 22x24cm high. Part no. 1004772.



## Autoclave for sterilization "MED 20"

### VERTICAL STAND MODEL.

CONFORMS TO APPARATUS PRESSURE REGULATION DIRECTIVES.

Features: see page 58



#### MODEL

Part No.	Capacity litres	Ø (usable) cm	Height (usable) cm	Height/Width/Depth (exterior) cm	Power W	Weight Kg
<b>4001757</b>	20	24	41	70 38 38	2500	41

It comes complete with two stainless steel wire baskets of Ø 22x24cm and Ø 22x14cm high. Part no. 1004772 and 1004771.



## Autoclaves for sterilization "Presoclave III" 50 and 80

MICROPROCESSOR TEMPERATURE AND CYCLE CONTROL AND ATMOSPHERIC PURGE.  
ELECTRONIC CONTROL OF TIME AND TEMPERATURE RANGE FROM 115 °C TO 134 °C. (0.62 TO 2 bar).  
CONFORMS TO APPARATUS PRESSURE REGULATION DIRECTIVES.  
VERTICAL MODEL: 50 AND 80 LITRES.



### SAFETY:

- SAFETY OVER PRESSURE VALVE:** PREVENTS OVER PRESSURE ABOVE THE MAXIMUM SET LIMIT.  
**SAFETY PRESSURE SWITCH:** DISCONNECTS POWER TO THE HEATER IF THE UNIT EXCEEDS THE MAXIMUM PRESSURE LIMIT.  
**SAFETY THERMOSTAT AND WATER LEVEL:** DISCONNECT POWER TO THE HEATER IF INSUFFICIENT WATER OR OVER TEMPERATURE.  
**SAFETY LID:** PREVENTS THE LID BEING OPENED IF THE CHAMBER IS UNDER PRESSURE.  
**SAFETY INSULATION:** THERMALLY INSULATED LID .

### An economic alternative, semi-automatic

#### FEATURES

External case made from stainless steel.  
INCOLOY stainless steel heater elements, hard waring, resistant to corrosion and high temperatures.  
Sterilization chamber and door made from stainless steel.  
Automatic purge to atmosphere  
Lid, 6 point closure.

#### CONTROL PANEL



1. Pressure gauge.
2. Illuminated alarm indicator.
3. Illuminated indicator end of cycle.
4. Illuminated indicator door open
5. Temperature display.
6. Time display
7. Temperature set pushbutton (range from 115 °C to 134 °C).
8. Pushbutton increase value.
9. Push button START
10. Push Button STOP
11. Push button Reduce value.
12. Push button select time, (range from 3' to 99').
13. Push button open lid



#### MODELS

	Part No.	Capacity litres	Ø	Height (usables cm)	Height / Width / Depth (exterior cm)	Power W	Weight Kg
PRESOCLAVE III 50	4001758	50	30	70	117 48 62	3000	75
PRESOCLAVE III 80	4002136	80	40	60	107 58 72	3600	100

Does not include baskets and drums, order separately.

#### ACCESSORIES: AISI 304 Stainless steel wire baskets and drums.

For Presoclave III 50, Part. no: 4001758.

Capacity, 3 baskets Ø 25 and 20 cm. height. Part No. **1000495**

For Presoclave III 80, Part. no: 4002136.

Capacity, 2 baskets Ø 36 and 28 cm. height. Part No. **1000496**

Sterilization drum made from AISI 304 stainless steel.

For Presoclave III 50, Part. no: 4001758.

Capacity, 3 drum Ø 25 and 18 cm. height. Part No. **1002418**

For Presoclave III 80, Part. no: 4002136.

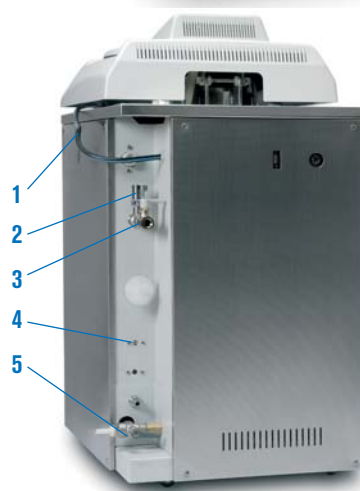
Capacity, 2 drum Ø 35 and 27 cm. height. Part No. **1002419**

#### Detergent Bio-Sel.

Water distillation unit especially for autoclaves.

USB adapter model. Pen-Drive included (Memory board) for data storage.

Part No: **4120131**



#### BACK VIEW:

1. Mains power.
2. Safety valve.
3. Steam empty valve.
4. Safety thermostat
5. Drain selector valve.

#### COMPLEMENTS That needs to be factory installed:

Pt100 second sensor only temperature reader. Part No. **4001219** (see page 63).

Printer of continuous paper roll with print out of temperature, pressure, time and mode. Part No. **4002417** (see page 62).

Loading and unloading crane. Part No. **1002426** (see page 70).



# Autoclaves for sterilization "Autester ST DRY PV III"

**MICROPROCESSOR PROCESS CONTROL.**  
**AUTOMATIC VACUUM DRY AND PURGE "PREVACUUM"**  
**PROGRAMMABLE TEMPERATURE FROM 105 °C TO 134 °C (0.21 TO 2 bar).**  
**CONFORMS TO APPARATUS PRESSURE REGULATION DIRECTIVES.**  
**VERTICAL FLOOR STANDING MODEL: 50, 80 AND 150 LITRES.**

NEW DESIGN

REGULATION SYSTEM 3

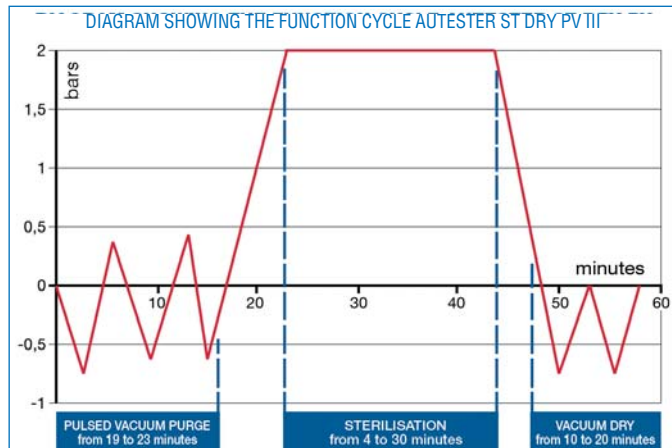
CONFORMITY	
EN 61010-1	SAFETY FOR EQUIPMENT FOR LABORATORY USE
EN 61010-2-040	SAFETY FOR STERILIZER EQUIPMENT FOR LABORATORY USE
EN 61326	ELECTROMAGNETIC COMPATIBILITY FOR EQUIPMENT FOR LABORATORY USE.

## FEATURES

- Stainless steel exterior and top.
- Stainless steel lid.
- Lid, six closure point system.
- Pulsed vacuum system and atmosphere purge.
- Incorporated steam generator, connected to the main chamber.
- Water reservoir for clean water for the steam generator boiler.
- External water connection if required.
- 6 function modes.
- RS 232 for PC parameters printing (back side).
- Printer output.
- USB output for PEN-DRIVE data logging and Computer connection.
- Connection for a second temperature sensor.
- Memory for 10 customer set programs.

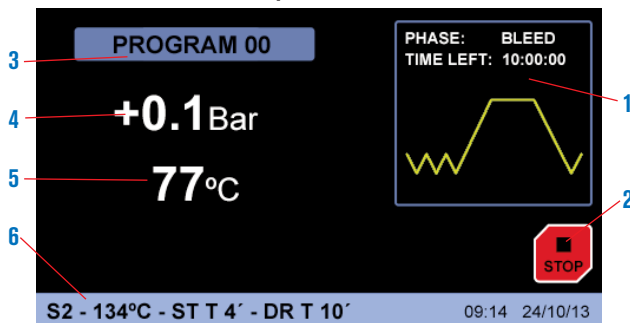
## SAFETY

- Safety:** The lid cannot be opened if the chamber is under pressure.
- Safety valve:** Prevents over pressure over the maximum limit.
- Safety pressure switch:** switches the heater power off to if over pressure.
- Safety Lid:** insulated lid protection.

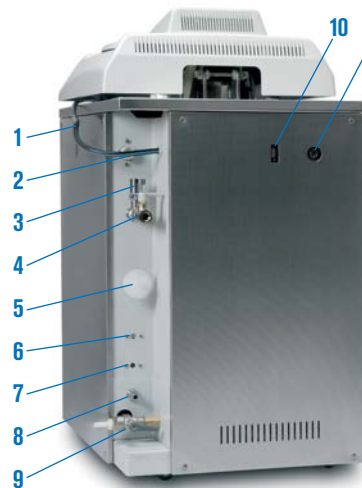


## CONTROL PANEL

TFT touch screen with virtual pushbuttons.



- Graphical representation of real time process
- Start/Stop virtual pushbutton.
- Running program.
- Press indicator.
- Temperature indicator.
- Running program parameters.



## BACK VIEW

- Mains input.
- External water supply.
- Safety valve.
- Vacuum vapour valve.
- Air in filter valve.
- Safety thermostat.
- Safety thermostat.
- Empty tank valve.
- Drain tank valve.
- RS232 connector.
- 2nd Temperature sensor connection.

## MICROPROCESSOR FEATURES

The microprocessor controls the performing of the air extraction process, sterilizing and drying, executing the selected procedures and commands by the user, adjusting the following parameters:

- Sterilization temperature from 105°C up to 134°C.
- Sterilization time from 3' to 59'.
- Drying time from 20' to 60'.
- Up to 10 user-configurable programs.
- Six operating modes:
  - Solid 1 - Solid 2 fractions. - Solid 3 fractions -
  - Drying - Liquids - Liquids 2 probes
- Verification test
  - Vacuum - Bowie Dick.
- Settings:
  - Units - languages (Spanish, English, French).
  - USB or printer module. - Clock: date/time.
  - External water: on/off.
- Password
- Calibration
  - Temperature probe 1 - Temperature probe 2
  - Water dosing.
- Audible and visual alarm for overtemperature and insufficient temperature.
- Network failures detection and memorization
- Safety thermostat by software
- Sterilization cycles data logging with capacity for over 500 cycles.
- Internal cleaning program
- Software for PC
- Temperature correction
- Summarized user manual on screen
- Graphical representation of real time process

Error messages of functions and program execution are displayed and an acoustic alarm sounds. The vapour generator automatically cuts out.

### MESSAGES:

- |                       |                           |
|-----------------------|---------------------------|
| 1. E 2PROM            | 10. TEMPERATURE LOW FAULT |
| 2. RTC FAULT          | 11. INPUT ERROR           |
| 3. SENSOR PRECISION   | 12. STERILIZATION         |
| 4. HEATER PROBE       | 13. LEVEL 1               |
| 5. CHAMBER PROBE      | 14. LEVEL 2               |
| 6. OVER PRESSURE      | 15. DOOR                  |
| 7. VACUUM             | 16. PRINTER NO PAPER      |
| 8. PRESSURE           | 17. PAPER JAM             |
| 9. BOILER TEMPERATURE | 18. ELECTRICAL FAULT      |



MODELS	Part No.	Dry	Capacity litres	Ø / Height (usables) cm	Height / Width / Depth (exterior) cm	Temp. °C	Water Reservoir H <sub>2</sub> O capacity.	Basket size	Power W	Weight Kg
AUTESTER ST DRY PV III 50	4002516	Yes	50	30 63	117 48 62	105 to 134	10	3	3000	108
AUTESTER ST DRY PV III 80	4002517	Yes	80	40 60	107 58 72	105 to 134	10	2	4850	136
AUTESTER ST DRY PV III 150*	4002518	Yes	150	50 70	118 80 95	105 to 134	20	3	7500*	250

Comes without baskets and drums.

\* The part number 4002518 due to its power rating is only manufactured for three phase 230V or 400V. Specify preference when ordering.

### COMPLEMENTS: Factory fitted options.



**Printer** of continuous paper roll with print out of temperature, pressure, time and mode. Part No. **4002417**

**Pt100 Sensor** (See page 63).

**Loading and unloading crane.** Part No. **1002426** (see page 70).

### ACCESSORIES: AISI 304 Stainless steel wire baskets and drums.

For **Autester ST DRY PV-II 50**, Part No: 4002515.

Capacity, 3 baskets Ø 25,5 and 20 cm. height. Part No: **1000495**

For **Autester ST DRY PV-II 80**, Part No: 4002425.

Capacity, 2 baskets Ø 36 and 28 cm. height. Part No: **1000496**

For **Autester ST DRY PV-II 150**, Part No: 4002426.

Capacity, 3 baskets Ø 44,5 and 22 cm. height. Part No: **1000780**

Sterilization **drum** made from AISI 304 stainless steel.

For **Autester ST DRY PV-II 50**, Part No: 4002515.

Capacity, 3 drum Ø 25 and 18 cm. height. Part No. **1002418**

For **Autester ST DRY PV-II 80**, Part No: 4002425.

Capacity, 2 drum Ø 35 and 27 cm. height. Part No. **1002419**

**Detergent Bio-Sel.** (see page 63)

**Water distillation** unit especially for autoclaves. (see page 63).

### PARAMETERS AND PROGRAMS PRE INSTALLED IN THE AUTOCLAVE MICROPROCESSOR

(Note: All these parameters are adjustable by the user)

N° Programme	Description	Temperature Sterilization	Time Sterilization	Time Dry	Purge
0	Free	-	-	-	-
1	Unwrapped instruments	134 °C	4 min	15 min	2 (1)
2	Wrapped instruments	134 °C	12 min	30 min	3 (2)
3	CJD	134 °C	20 min	20 min	3 (2)
4	Delicate unwrapped	121 °C	15 min	15 min	2 (1)
5	Delicate wrapped	121 °C	30 min	30 min	3 (2)
6	Disinfecting	105 °C	25 min	15 min	1 (3)
7	Liquids	121 °C	30 min	-	1 (3)
8	Solids	121 °C	15 min	30 min	1 (3)
9	Solids	134 °C	4 min	30 min	1 (3)

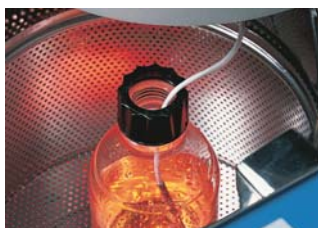
(1) Double Vacuum purge.

(2) Triple Vacuum purge.

(3) Atmospheric purge (No vacuum).



**OPTIONS:** for vertical autoclaves, need to be factory fitted.



**Pt 100 Sensor.** 2<sup>nd</sup> Probe for reading sample temperature.

To guarantee in all circumstances that the system has completed the cycle to the set time and temperature parameters, the Autester ST DRY PV II autoclave can be installed with a temperature probe that can be placed within the culture flask, residual packets etc.

When the probe is connected to the controller of the autoclave, it is automatically recognised by the micro-processor, whereby the real time temperature values detected by the probe, are displayed and printed.

For autoclaves PRESOCALVE III this Pt100 sensor only reads the temperature with an external thermometer.

Part No. **4001219**

**Loading and unloading crane.** Part No. **1002426** (see page 70).

### ACCESSORIES FOR VERTICAL AUTOCLAVES



AISI 304 stainless steel wire baskets.

Part No.	Ø	Height cm	Suitable for autoclaves Part No.	Number of baskets
<b>1004771</b>	22	14	4001745	1
<b>1004772</b>	22	24	4001756	1
<b>1004771</b>	22	14	4001757*	1
<b>1004772</b>	22	24	4001757*	1
<b>1000495</b>	27	20	4001758 - 4002516	3
<b>1000496</b>	36	28	4002136 - 4002517	2
<b>1000780</b>	44	22	4002518	3

Note:\* For autoclave Part No. 4001757 supplied with 1 basket Part No. **1004771** + 1 basket Part No. **1004772**



AISI 316 stainless steel wire dividers for autoclave baskets.

Part No.

**1001217** 4 divider compartments for basket part no. 1000495.

**1001218** 6 divider compartments for basket part no. 1000496.

**1001222** 7 divider compartments for basket part no. 1000780.



**Sterilization Drums.**

Part No.	Ø	Height cm	Suitable for autoclaves Part No.	Capacity Drums
<b>1002418</b>	25	18	4001758 - 4002516	3
<b>1002419</b>	35	27	4002136 - 4002517	2
<b>1002420</b>	28	18	Not suitable for our autoclaves.	



**Water distiller, specially for autoclaves "DEST-4".**

Distillation capacity: 1.5 litres/hour. Internal capacity 4 litres.

Case made from thermo resistant plastic.

Internal stainless steel.

Cooling by forced air through a condenser. Without glass heater elements.

Easy to use. Safety cut out system if over temperature due to insufficient water.

Comes complete with a 4 litre three way dispenser plastic bottle with filter.

Note: for daily use it is recommended to change the filter every 3 months.

No external additional water required

Part No.	Capacity Distillation litre/Hour	Conductivity µs/cm	Ø	Height cm	Power W	Weight Kg
<b>4001729</b>	1.5	5	29	39	750	3.5

**Spare:** Dispenser spout with filter. Part No. **4001730**

**Detergent "BIO-SEL"**

We recommend the use of BIO-Sel detergent for cleaning, it is also biodegradable and free from Phosphates.

Part No.

**1000025** Capacity 1 litre.

**1000026** Capacity 4 litres.

**1000852** Box of 12 x 1 litre flasks.

**1000853** Box of 4 x 4 litre flasks.





# Autoclave for liquids and solids sterilization "Autester ST DRY PV III" 25

CAPACITY: 25 LITRES. SPACE FOR 12 BOTTLES OF 250 ML, 9 OF 500 ML, 3 OF 1000 ML AND 2 OF 2000 ML.  
CONFORMS TO THE REGULATION - 97/23/CEE EQUIPMENT UNDER PRESSURE.



**Complete selection of programs. Displays in English - Spanish - French.**

## FEATURES

- Sterilization chamber and lid made from AISI 316 stainless steel.
- External case epoxy coated.
- Digital control of all autoclave operations.
- Large back lit LCD 2 x 24 character display.
- Air filter, purifies air before entering in the sterilization chamber.
- Separate clean water reservoir and waste water.
- RS-232 Interface output of parameters to a computer or for printer.
- USB output for PEN-DRIVE data logging and Computer connection.

## SAFETY

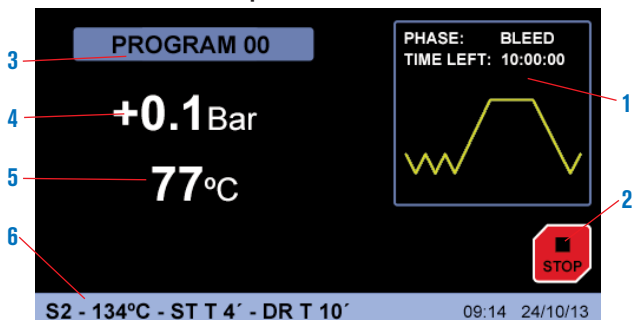
- Safety valve.
- Prevents the door being opened if under pressure or high temperature is produced.
- Temperature safety thermostat.
- Door closed correctly detector
- Thermally protected lid.

## MICROPROCESSOR FUNCTIONS

- Controlled parameters are:
- Sterilization temperature from 105°C up to 134°C.
  - Sterilization time from 3' to 59'.
  - Drying time from 20' to 60'.
  - Up to 10 user-configurable programs.
  - Six operating modes:
    - Solid 1 - Solid 2 fractions. - Solid 3 fractions - Drying - Liquids - Liquids 2 probes
  - Verification test
    - Vacuum - Bowie Dick.
  - Settings:
    - Units - languages (Spanish, English, French). - USB or printer module. - Clock: date/time. - External water: on/off.
  - Password
  - Calibration
    - Temperature probe 1 - Temperature probe 2 - Water dosing.
  - Audible and visual alarm for overtemperature and insufficient temperature.
  - Network failures detection and memorization
  - Safety thermostat by software
  - Sterilization cycles data logging with capacity for over 500 cycles.
  - Internal cleaning program
  - Software for PC
  - Temperature correction
  - Summarized user manual on screen
  - Graphical representation of real time process

## CONTROL PANEL

TFT touch screen with virtual pushbuttons.



- Graphical representation of real time process
- Start/Stop virtual pushbutton.
- Running program.
- Press indicator.
- Temperature indicator.
- Running program parameters.



- NEW DESIGN
- RS232
- USB

MODEL	Part No.	Capacity litres	Ø/Depth (usables) cm	Height/Width/Depth (exterior) cm	Power W	Weight Kg
AUTESTER ST DRY PV III 25	4002420	25	30 35	58 46 59	2510	52



Comes complete with three trays, extractor forceps, and additional support for instruments and sterile wrapping bags.

## PARAMETERS AND PROGRAMS PRE INSTALLED IN THE AUTOCLAVE MICROPROCESSOR

(Note: All these parameters are adjustable by the user)

Nº Programme	Description	Temperature Sterilization	Time Sterilization	Time Dry	Purge
0	Free	-	-	-	-
1	Unwrapped instruments	134 °C	4 min	15 min	2 (1)
2	Wrapped instruments	134 °C	12 min	30 min	3 (2)
3	CJD	134 °C	20 min	20 min	3 (2)
4	Delicate unwrapped	121 °C	15 min	15 min	2 (1)
5	Delicate wrapped	121 °C	30 min	30 min	3 (2)
6	Disinfecting	105 °C	25 min	15 min	1 (3)
7	Liquids	121 °C	30 min	-	1 (3)
8	Solids	121 °C	15 min	30 min	1 (3)
9	Solids	134 °C	4 min	30 min	1 (3)

(1) Double Vacuum purge.  
(2) Triple Vacuum purge.  
(3) Atmospheric purge (No vacuum).

## MESSAGES:

- |                       |                           |
|-----------------------|---------------------------|
| 1. E 2PROM            | 10. TEMPERATURE LOW FAULT |
| 2. RTC FAULT          | 11. INPUT ERROR           |
| 3. SENSOR PRECISION   | 12. STERILIZATION         |
| 4. HEATER PROBE       | 13. LEVEL 1               |
| 5. CHAMBER PROBE      | 14. LEVEL 2               |
| 6. OVER PRESSURE      | 15. DOOR                  |
| 7. VACUUM             | 16. PRINTER NO PAPER      |
| 8. PRESSURE           | 17. PAPER JAM             |
| 9. BOILER TEMPERATURE | 18. ELECTRICAL FAULT      |

## ACCESSORIES

**Ink Printer** (no thermal).  
Paper size 2 1/4" (56 mm) wide.  
Includes communications and power cable.

**Model**

Part No.	Height/Width/Depth cm	Power	Weight Kg
4120113	4 16 10	DC 5V 3A	1



**Water distiller** especially for Autoclaves. (See page 63).

**Bag sealers** (See page 68).

**Special tray** for bottles of 0.25, 0.5, 1 or 2 litres. Part No. 4002416



# Autoclave for sterilization "Autester ST DRY PV" Class B



**AUTOMATIC VACUUM DRY AND PURGE.**  
**PROGRAMS TO 121 °C AND 134 °C (1 AND 2 bar).**  
**MODEL HORIZONTAL. CAPACITY: 12, 18, AND 23 LITRES.**

## APPLICATIONS

"Class B" autoclaves are used within the field of general medicine, dentistry, veterinary, tattoo parlours and sterilization applications in general, to sterilize any material that could have been in contact with body fluids including blood.

The general capabilities of the instrument are regulated by EN 13060 that guarantees the differing sterilization applications.

The normal processes include: Solids with and without wrapping, porous material with and without wrapping and utensils that have cavities and holes (e.g. dentistry materials.)

To guarantee sterilization of these materials the "AUTESTER ST DRY PV" Class B, autoclaves, have an efficient staged vacuum, that performs a complete extraction of air that allows penetration of the steam vapour.

The same vacuum system is used to obtain the dry phase, which is required for perfect storage of sterilized materials.

The "AUTOCLAVES ST DRY PV" Class B includes verification and validation programs.

## CONFORMITY:

EN 13060	<b>SMALL GENERAL PURPOSE STEAM STERILIZERS.</b>
EN 61010-1	<b>EQUIPMENT SAFE FOR LABORATORY USE.</b>
EN 61010-2-040	<b>SAFETY FOR STERILIZER EQUIPMENT FOR LABORATORY USE</b>
EN 61326	<b>ELECTROMAGNETIC COMPATIBILITY FOR EQUIPMENT USED IN THE LABORATORY.</b>

## SAFETY:

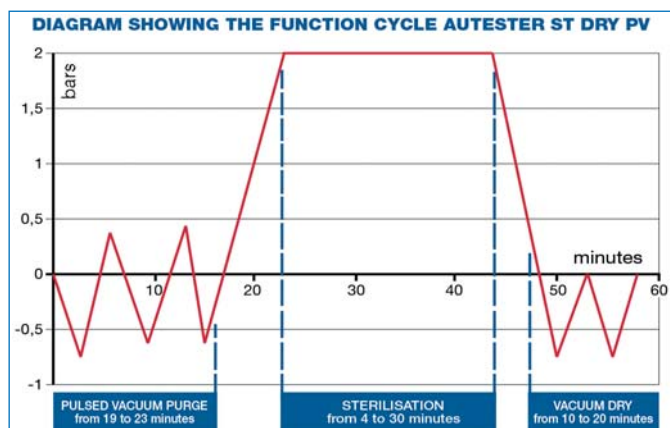
<b>SAFETY VALVE:</b>	<b>PREVENTS THE PRESSURE EXCEEDING THE MAXIMUM SET LIMIT.</b>
<b>SAFETY THERMOSTAT:</b>	<b>DISCONNECTS THE HEATER AGAINST OVER TEMPERATURE OR LOW WATER IN THE RESERVOIR. THERMALLY INSULATED LID.</b>



**12 litres**



**18 and 23 litres**



**Staged fractional vacuum:** Extracts air from the load that permits absolute steam vapour penetration.

**Sterilization stage:** Sterilization within the time and temperature selected.

**Dry cycle:** Extracts the humidity from the load leaving it suitable for storage.



# Autoclave for sterilization Autester "ST DRY PV" 12 Class B

CAPACITY: "ST DRY PV": 12 LITRES.



**According to directive: 97/23/CEE equipment under pressure, 3.3.**

## FEATURES

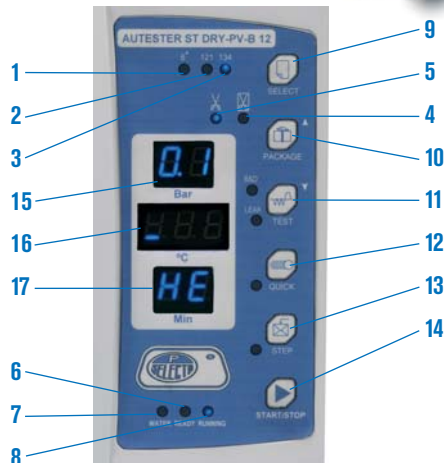
- Stainless steel internal chamber.
- Staged vacuum purge.
- Dry by vacuum
- Incorporated steam generator.
- Water reservoir to supply the chamber
- High vapour penetration of porous material
- Used in digestive studies, ophthalmology, operating theatres etc .
- Printer interface.
- USB adapter for parameters memorization (optional).

## SAFETY

- Safety valve.** Prevents over pressure over the maximum working limit.
- Safety thermostat.** Disconnects power to the heater if over temperature or low water in the reservoir.
- Thermally protected lid.**



## CONTROL PANEL



## TEMPERATURE CONTROL AND AUTOMATIC MICROPROCESSOR CYCLE.

- Textile materials
- 121 °C.
- 134 °C.
- Wrapped solids.
- Solids (Not wrapped).
- Low level water indicator.
- Autoclave ready for operation.
- Sterilization cycle in process
- Program selection.
- Select wrapped or non wrapped.
- Test.
- Fast sterilization.
- "maintain hot" the chamber.
- Preheat.
- Pressure indicator (bar).
- Temperature indicator (°C).
- Time Indicator (min.).

CYCLES	134 °C Wrapped	134 °C Not Wrapped	121 °C Wrapped	121 °C Not Wrapped	Textiles	Test Bowie Dick	Test Vacuum
Sterilization Temperature	134 °C	134 °C	121 °C	121 °C	134 °C	134 °C	-
Sterilization pressure	2.1 bar	2.1 bar	1.1 bar	1.1 bar	2.1 bar	-	2.1 bar
Vacuum purge time	8 min.	4 min.	8 min.	4 min.	8 min.	-	-
Sterilization time	12 min.	4 min.	30 min.	20 min.	12 min.	3.5 min.	10 min.
Dry time	10 min.	10 min.	10 min.	10 min.	15 min.	1 min.	-

MODEL	Part No.	Capacity litres	Ø / Depth cm		External dimensions cm			Trays dimensions cm			Power W	Weight kg
			Height	Width	Height	Width	Depth	Height	Width	Depth		
AUTESTER ST DRY PV B 12	4001727	12	20	35	39,2	48,7	60	1,8	14	29,5	1800	42,2



Comes complete with:  
spare joint, door adjustment key, support with three trays,  
extractor forceps, empty water filter and waste water out.

## ACCESSORIES

### USB adapter model.

Pen-Drive included (Memory board) for data storage.

Part No: **4120130**

### Thermal Printer.

Paper size 2 1/4" (56 mm) wide.

Includes communications and power cable.

Power: DC 5V 3A

Part No: **4120123**

**Water distiller** especially for Autoclaves. (See page 63).

**Bag sealers** (See page 68).





# Autoclave for sterilization “Autester ST DRY PV” 18 Class B “ST DRY PV” 23 Class B



CAPACITY: “ST DRY PV” 18: 18 LITRES. “ST DRY PV” 23: 23 LITRES.

**According to directive: 97/23/CEE equipment under pressure, 3.3.**

## FEATURES

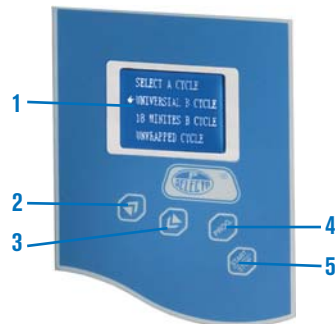
- Digital electronic control.
- Stainless steel internal chamber.
- Staged vacuum purge.
- Dry by vacuum
- Incorporated steam generator.
- Water reservoir to supply the chamber
- High vapour penetration of porous material
- Used in digestive studies, ophthalmology, operating theatres etc.
- Automatic or manual filling of the water tank.
- Printer interface.
- USB adapter for parameters memorization (optional).

## SAFETY

- Mechanism door lock**, prevents the door being opened accidentally.
- Safety valve**. Prevents over pressure over the maximum working limit.
- Safety thermostat**. Disconnect power to the heaters if over temperature or low water in the reservoir are produced.
- Thermally insulated lid**.
- Dirty water tank full alarm**.

## CONTROL PANEL

- LCD screen.
- Push button increase parameters.
- Push button decrease parameters.
- Push button menu.
- Push button Start-Stop.



**TEMPERATURE CONTROL AND AUTOMATIC MICROPROCESSOR CYCLE.**

NEW DESIGN



CYCLES	134 °C Emergency	134 °C Solid	134 °C Hollow	134 °C Sanguinary	121 °C Solid	121 °C Hollow	134 °C Glass	121 °C Tampon	134 °C Bowie Dick	134 °C Helix	134 °C User-defined	Test Vacuum
Sterilization Temperature	134 °C	134 °C	134 °C	134 °C	121 °C	121 °C	134 °C	121 °C	134 °C	134 °C	134 °C	-
Sterilization pressure	2,1 bar	2,1 bar	2,1 bar	2,1 bar	1,1 bar	1,1 bar	1,1 bar	1,1 bar	2,1 bar	2,1 bar	-	-
Vacuum purge number	1	1	4	3	1	3	1	3	3	3	3	-
Sterilization time	4 min.	4 min.	4 min.	18 min.	20 min.	20 min.	4 min.	30 min.	3,5 min.	3,5 min.	4 min.	-
Dry time	8 min.	4 min.	10 min.	10 min.	8 min.	10 min.	4 min.	18 min.	3min.	3 min.	3 min.	-

MODEL	Part No.	Capacity litres	Ø / depth cm		External dimensions cm			Trays dimensions cm			Power W	Weight kg
					Height	Width	Depth	Height	Width	Depth		
AUTESTER ST DRY PV 18	4001734	18	24,5	36	40	47	83	2	20,5	28	1500	46,6
AUTESTER ST DRY PV 23	4001735	23	24,5	47	40	47	94	2	20,5	38	1700	48



Comes complete with:  
spare joint, door adjustment key, support with three trays,  
extractor forceps, empty water filter and waste water out.

## ACCESSORIES

- USB adapter model.**  
Pen-Drive included (Memory board) for data storage.  
Part No: **4120130**
- Ink Printer** (no thermal).  
Paper size 2 1/4" (56 mm) wide.  
Includes communications and power cable.  
Power: DC 5V 3A  
Part No: **4120124**
- Water distiller** especially for Autoclaves. (See page 63).
- Bag sealers** (See page 68).





## Bag sealer "S-400"

SUITABLE FOR POLYPROPYLENE-POLYESTER STERILISING BAGS WITH A PAPER BASE.

### FEATURES

Metal epoxy covered case.  
Pressure sealer. Manual cut.  
Stainless steel AISI 304 reel support at the back.

### CONTROL PANEL

Illuminated mains switch.  
Lamp on when the thermostat has reached the pre-set working temperature.

### MODEL

Part No.	Seal Width mm	Maximum seal length mm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
<b>4100041</b>	9	270	12 35 21	200	5.3



## Bag sealer "Seal-1000"

FOR POLYPROPYLENE AND POLYESTER BAGS WITH A STERILE PAPER BASE.

### FEATURES

Metal construction with stainless steel tray.  
Pressure sealer unit with lateral lever with two bilateral cutting edges.  
Constant sealing temperature (from 180 °C and 200 °C).

External support for rolls of up to 240mm wide, with adjustable separator sides to accommodate different roll sizes.

### CONTROL PANEL

Illuminated start switch.  
Indicator, optimum seal temperature.

Part No.	Seal width mm	Maximum seal length mm	Height / Width / Depth (exterior) cm	Power W	Weight Kg
<b>4101712</b>	10	260	30 36 43	400	6.5



## Automatic bag sealer "Seal-Com 2"

IN ACCORDANCE WITH DIN 58953 SECTION 7 STANDARD. FOR SEALING STERILE PAPER, POLYPROPYLENE-POLYESTER BAGS. CONTINUOUS SEALING, AUTOMATIC ADVANCE.

### Continuous Thermosealer

### FEATURES

Exterior made from stainless steel.  
Heating time: 4 minutes.  
Seal width: 10 mm.  
Sealing speed: 6 m/min.  
Digital control and display of temperature and time.  
Acoustic sign of cycle starting.

### CONTROL PANEL

Luminous "ON" switch.  
Luminous "Manual or Automatic" switch.

### MODEL

Part No.	Height / Width / Depth (sealer) cm	Power W	Weight Kg
<b>4100044</b>	16 48 26	400	13



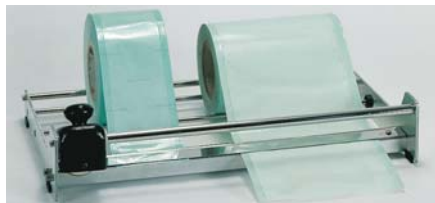
### SEALING MACHINE ACCESSORIES



#### Rolls of paper for sterilization "Polisteril"

Paper base polypropylene and polyester bags showing differing ink prints of sterilized items.

Part No.	Bag width cm	Bag length m
<b>4100075</b>	7,5	100
<b>4100100</b>	10	100
<b>4100200</b>	20	100



#### Sterile paper "Policort" trimmer

Completely made of metal with back and reel support, for a capacity of 2 x 200mm or 4 x 100 mm wide reels.

Circular cutting knife edge.  
Measurements: 13 high x 51 wide x 32 cm deep.  
Weight: 2.8 Kg.  
Part No. **4100045**



#### Date stamping machine for sterile bags.

Part No. **4100046**

**STERILIZED**  
30 OCTOBER 2015  
**VALID FOR 3 MONTHS.**

**OPTIONS:** Ultrasonic cleaning baths for dentistry, "Ultrasons-Digit" (see page 96). Dry sterilizer "DRYTIME" poupinel oven (see page 137).



# Autoclaves for preserved food pasteurization/sterilization "STERIL-FOOD" 20, 80 and 150

SELECTABLE TEMPERATURE BETWEEN 70 °C & 121°C.

CAPACITY: 20, 80 & 150 L.

AUTOCLAVES "MAN" MODEL NEED A COMPRESSED AIR EXTERNAL INSTALATION.

AUTOCLAVES "COM" MODEL INCLUDE COMPRESSOR AND DO NOT NEED COMPRESSED AIR INSTALLATION.

WATER SUPPLY NEEDED WITH LOW-CAL CONTENT AND DRAINAGE. (WATER PRESURE: 3 BAR MINIMUM).



## CONFORMITY

EN 61010-1	SAFETY FOR EQUIPMENTS FOR LABORATORY USE .
EN 61010-2-040	SAFETY FOR STERILIZER EQUIPMENTS.
EN 61326	ELECTROMAGNETIC COMPATIBILITY.
EN/97/23/EC	SAFETY FOR PRESSURE EQUIPMENTS.

## APPLICATIONS

Preserved food sterilization.

Very suitable for small productions and wide variety.

## FEATURES

External case, top, tank and lid made of stainless steel.

Tank fill by external water inlet.

Temperature control probe inside the sample.

Counter pressure system to prevent the cans breakage.

Temperature, time and pressure registered in USB.

## SAFETY

**Device** that avoids opening the lid when the chamber is under pressure.

**Safety valve:** Prevents overpressure over the maximum limit.

**Safety pressure switch:** Disconnects heater when there's overpressure.

**Thermally insulated lid.**

**Door** properly closed detector.

**Double** filter retention

## CONTROL PANEL

1. Parameters LCD display.

2. Microprocessor single button.

3. Operation Led.

4. Start/stop push button.

5. USB adapter.

6. Open lid knob.

7. USB function light indicator.



## MICROPROCESSOR FEATURES

Microprocessor controls sterilization and cooling process:

- Pasteurization temperature from 70°C to 100°C.
- Sterilization temperature from 100°C to 121°C.
- Sterilization time from 1' to 99'.
- Selectable cooling temperature.
- Programs - from 0 to 9 user configurable.
- Configuration: - Units. - Languages (Spanish, English, French).
- Timer: date/hour. - External water: on/off.
- Password
- Calibration - Control probe temperature.
- Sample probe temperature

Any error message of functions or execution is displayed in the panel and an acoustic alarm sounds, automatically cutting the steam generator out.

## BENEFITS

Water quick cooling.

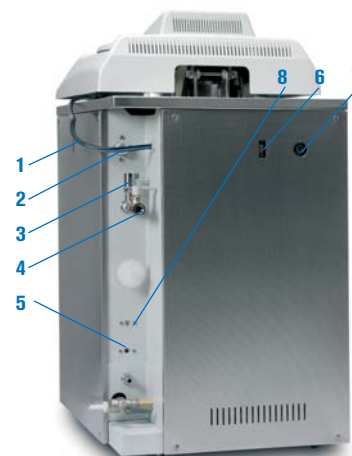
High efficiency in heat treatment

Respect the organoleptic properties of food.

Easy and quick changing of heat treatment parameters.

10 user defined programs.

Models with built-in compressor.



## BACK VIEW

1. Mains input.
2. External water supply.
3. Safety valve.
4. Vacuum steam valve.
5. Safety thermostat.
6. RS232 connector.
7. Second probe connector.
8. Compressed air inlet.

MODELS	Part No.	Drying	Capacity litres	Ø / Height (usable) cm	Height/Width/ Depth (external) cm	Temp. °C	Capacity baskets	Power W	Weight Kg
STERIL-FOOD COM 20	4002421	NO	20	24 41	70 38 38	70 to 121	2	2500	55
STERIL-FOOD MAN 80	4002427	NO	80	40 60	107 58 72	70 to 121	2	3600	136
STERIL-FOOD COM 80	4002422	NO	80	40 60	107 58 72	70 to 121	2	3600	136
STERIL-FOOD MAN 150*	4002428	NO	150	50 70	118 80 95	70 to 121	3	7500*	250
STERIL-FOOD COM 150*	4002423	NO	150	50 70	118 80 95	70 to 121	3	7500*	250

It is supplied without baskets or drums. \*Part numbers 4002428 and 4002423, due to their power consumption are manufactured for three phase 230V or 400V. Specify preference when ordering.

#### COMPLEMENTS FOR "PRESOCLAVE III 50 - 80", "AUTESTER ST DRY PV III 50 - 80 - 150" AND "STERIL-FOOD 80 - 150"

##### Loading and unloading crane

Baskets elevator for loading and unloading of autoclaves of 50, 80 and 150L  
With adapter for handling baskets without deforming.

Axial rotation for placing baskets to a trolley.

Total lift height: 2.4 m (autoclave assembled)

Outside completely stainless steel.

Maximum load: 25 Kg.

Power: 230V 300W

Must be factory installed.

Control panel: ON / OFF button + UP / DOWN pushbutton integrated into a single command.

Part No: **1002426**



#### ACCESSORIES FOR STERIL-FOOD

##### Decalcifier "C-3"

##### APPLICATIONS

Pre-treatment of water with high content of lime, for general laboratory use.

Recommended for distillation units use, from 25° French water hardness.

##### TECHNICAL DATA

AISI 304 stainless steel metallic tank with manual device of salt regeneration by two-way wrenches.

Resin capacity: 12 litres. Regeneration by salt: 2 Kg.

Cyclical output by regeneration: 1200 litres at 60° French degrees / 4800 litres at 35° French degrees.

Cyclical output by regeneration for distillation: from 300 to 800 litres.

Maximum mains inlet pressure: 4,5 Kg/cm<sup>2</sup>.

Maximum input permissible hardness: 60° French degrees.

Output hardness: 1° French degree.

External measurements: 62 height x 19 cm Ø. Weight: 20 Kg.

Part Number **0703052**



It comes complete with 3/4 in and out hoses.

##### AISI 304 stainless steel wire baskets. Maximum load capacity: 8 kg.

Part No.	For autoclave litres	Ø / Height (Usable) cm	Capacity baskets	Bottle capacity Ø72x85mm	Bottle capacity Ø82x115mm
<b>1000496</b>	80	36 x 28	2	55	55
<b>1000780</b>	150	45 x 22	3	162	150
<b>1000786</b>	150	47 x 15	5	150	95

Note: To optimize the load in the autoclave, we manufacture baskets on demand suitable to the size and weight of your containers.

